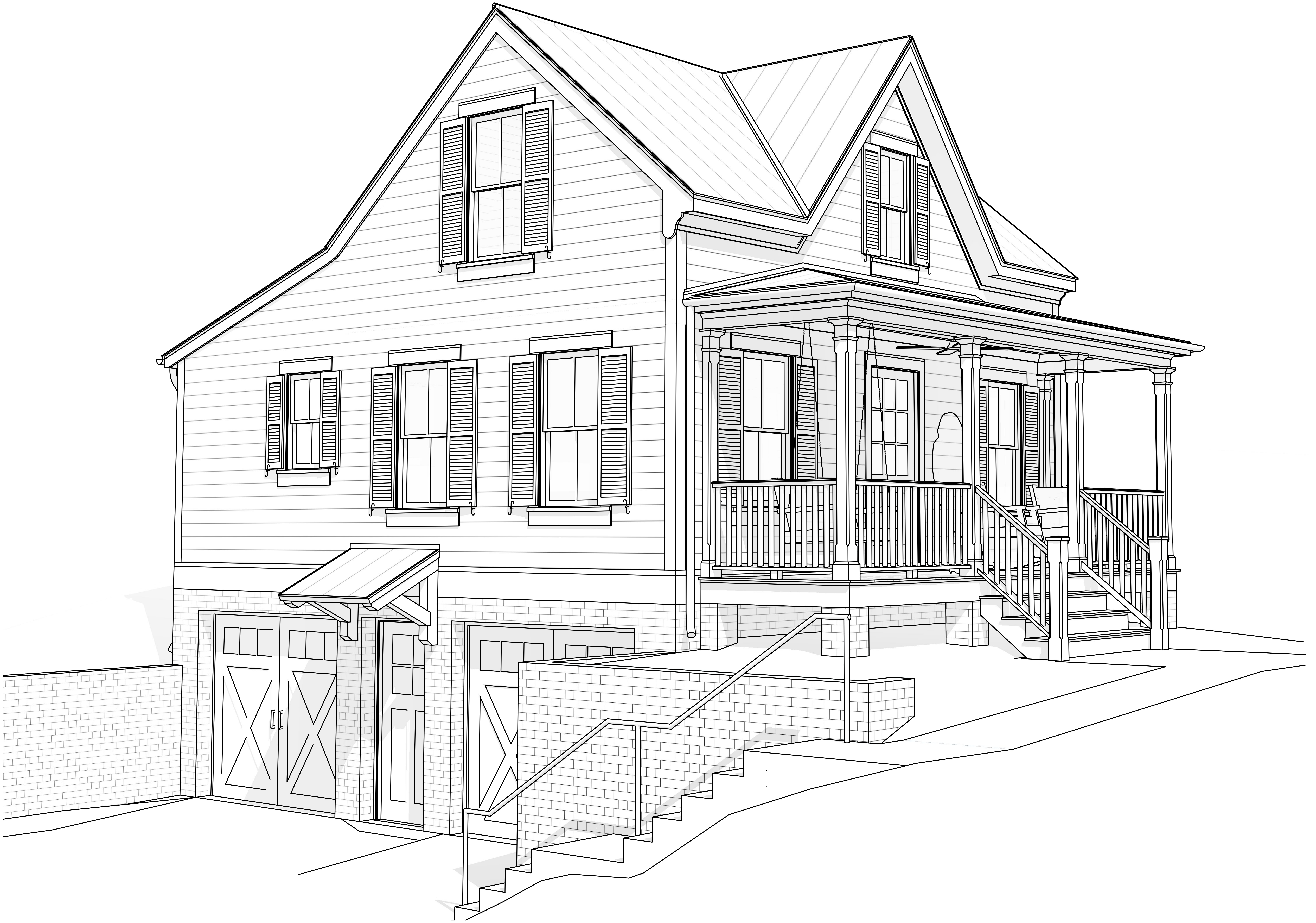


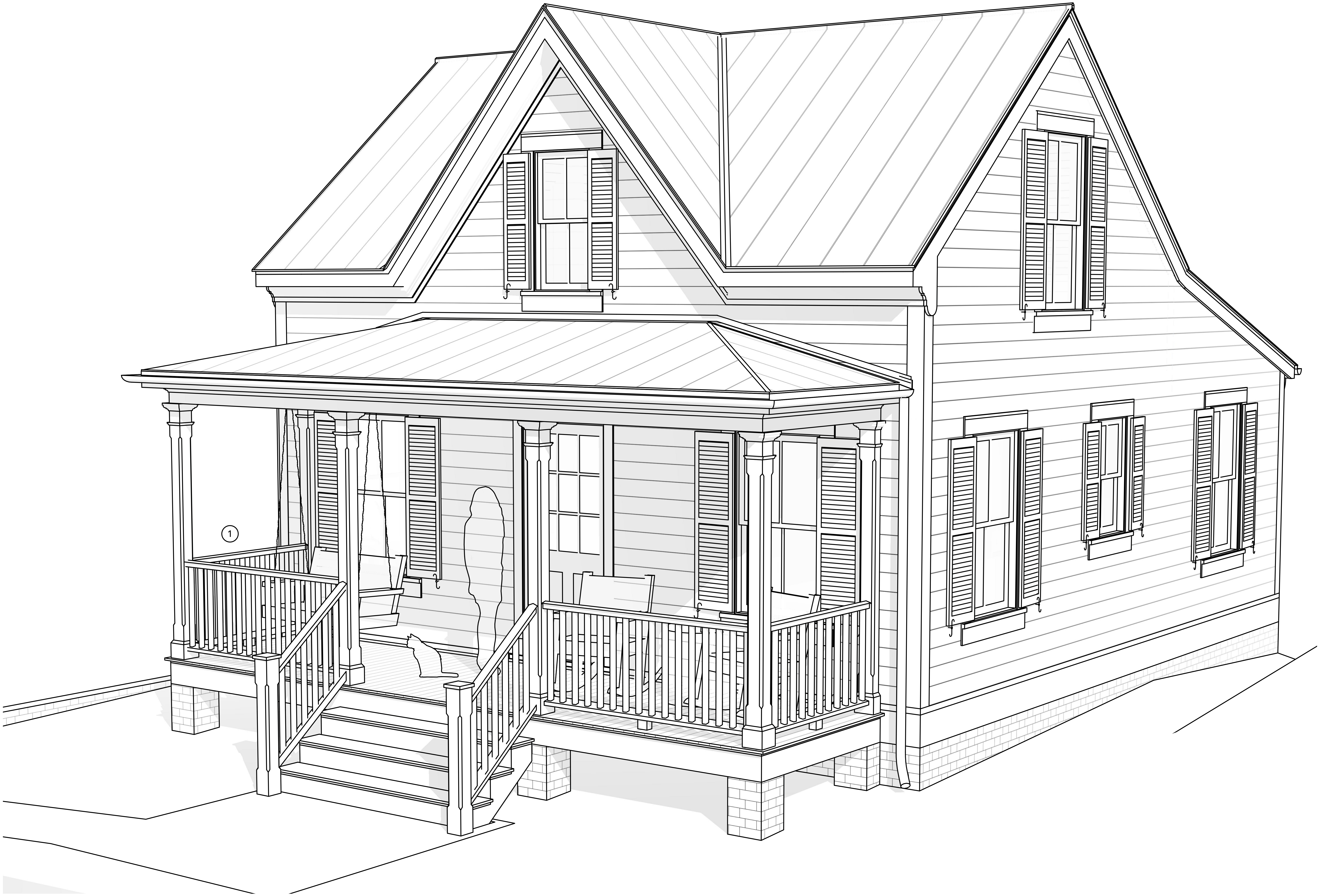
The Backyard Farmhouse is based on an iconic archetype from the 1800s– a house with 1.5 stories and a front-facing gable. Such designs were most common in colder climates because they were compact– with a minimal amount of interior volume– and therefore easier to heat in the winter. They also used space and material efficiently. Their size makes them useful for an accessory dwelling unit (ADU) or vacation cottage.

EXTENDED BACKYARD FARMHOUSE

FRONT PERSPECTIVE 1

JAY OSBORNE

This version of the Backyard Farmhouse has a basement garage, and a bedroom suite added to the main level. The primary massing has a footprint of only 16 by 24 feet, which is about as small as it can be. The house could be built without the basement foundation, and could have the bedroom suite built later as a rear addition. Overall, the size of the house is about 900 square feet– or 1500 ft², if the basement is included in the total area.



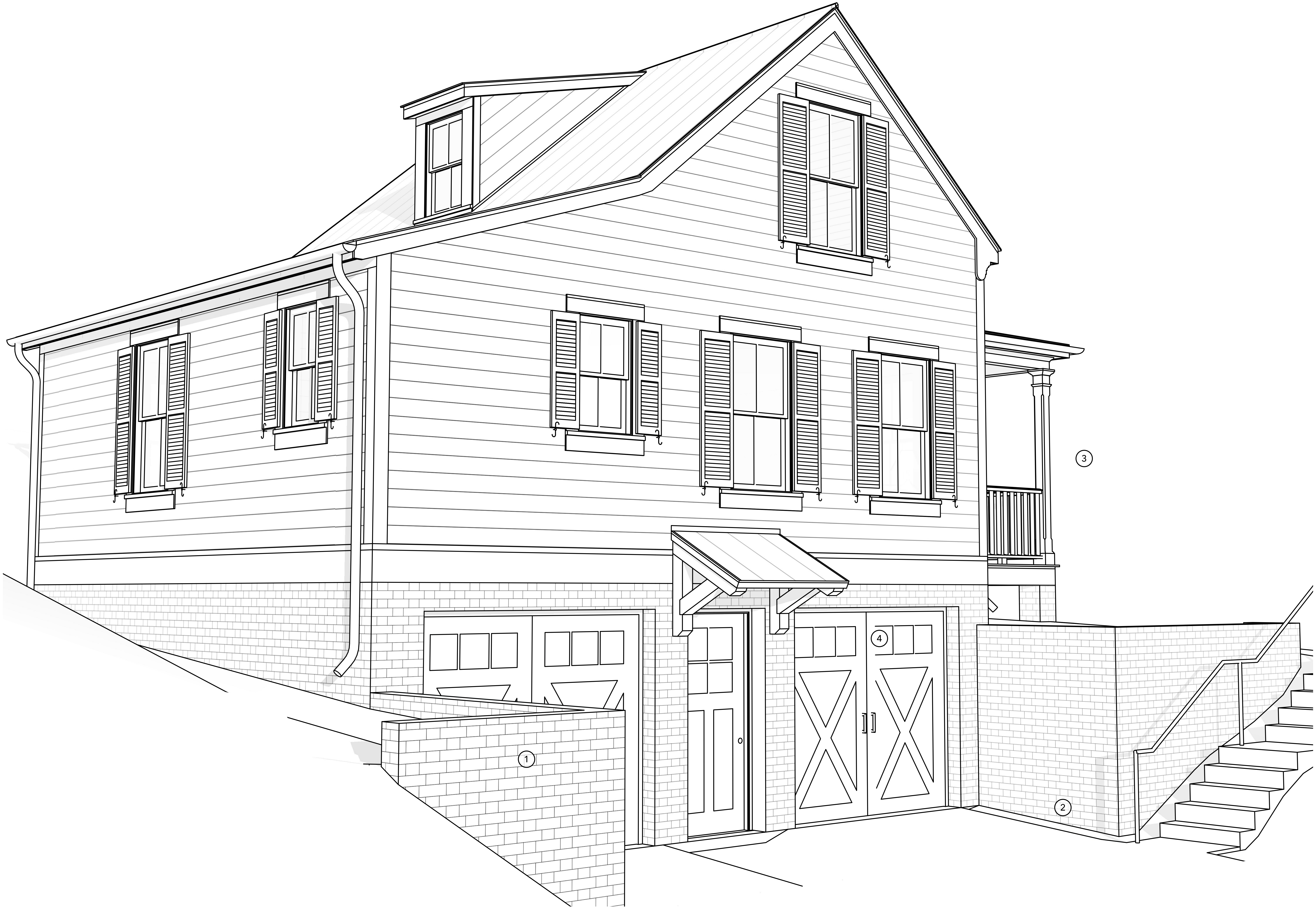
Just like other variations of the design, this house is made to be short and compact. Height limits for houses are measured in many ways, but a common requirement is to keep them less than 25 feet above the existing ground level. Such local ordinances are common in places like California, where building sites are often on hills, and everybody is protective of their views. This design works with that highly restrictive requirement.

EXTENDED BACKYARD FARMHOUSE

FRONT PERSPECTIVE 2

JAY OSBORNE

(1) If the porch is low enough to the ground, a railing isn't required. Railings usually only need to be 36" tall, but in some places (like California) residential codes usually require them to be 42" tall. Because such high railings ruin sightlines for people sitting on the porch, and because they look so unhistorical and cage-like, you could consider using a 32" railing with a railing extension— which consists of a 1" pipe with 2-3 cables below.



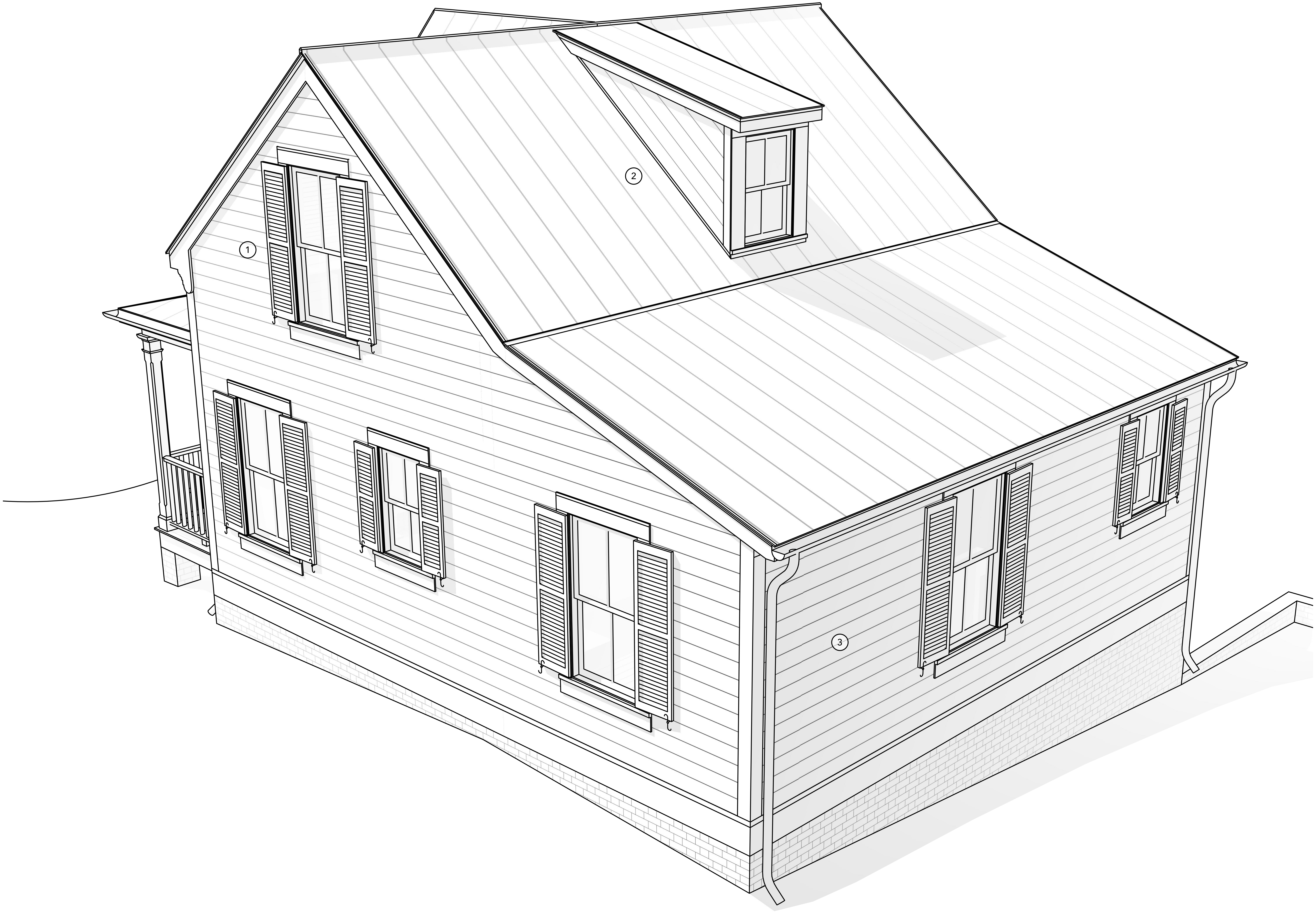
(1) Retaining walls are required at this side of the house, reducing the building height (from existing grade), and helping to embed the house into the hillside. It is shown with a brick texture, but it could still look good as concrete (especially board-form). Adding a brick veneer to a concrete wall can make it thicker, and somewhat complicated. Just don’t use the fake imprinted brick pattern that’s now fashionable on concrete walls.

EXTENDED BACKYARD FARMHOUSE

BACK PERSPECTIVE 1

JAY OSBORNE

(2) It’s best to have a planting strip around all walls, even if only 12” wide. This “softens” the appearance of the house. If paving hits its walls directly, a building feels more urban.
(3) The main benefit of a basement garage is that it “buries” unsightly cars and other utility functions, resulting in unimpeded views from the house to the countryside beyond.
(4) Because they’re out of view, these swinging doors can be more utilitarian, and roll up.



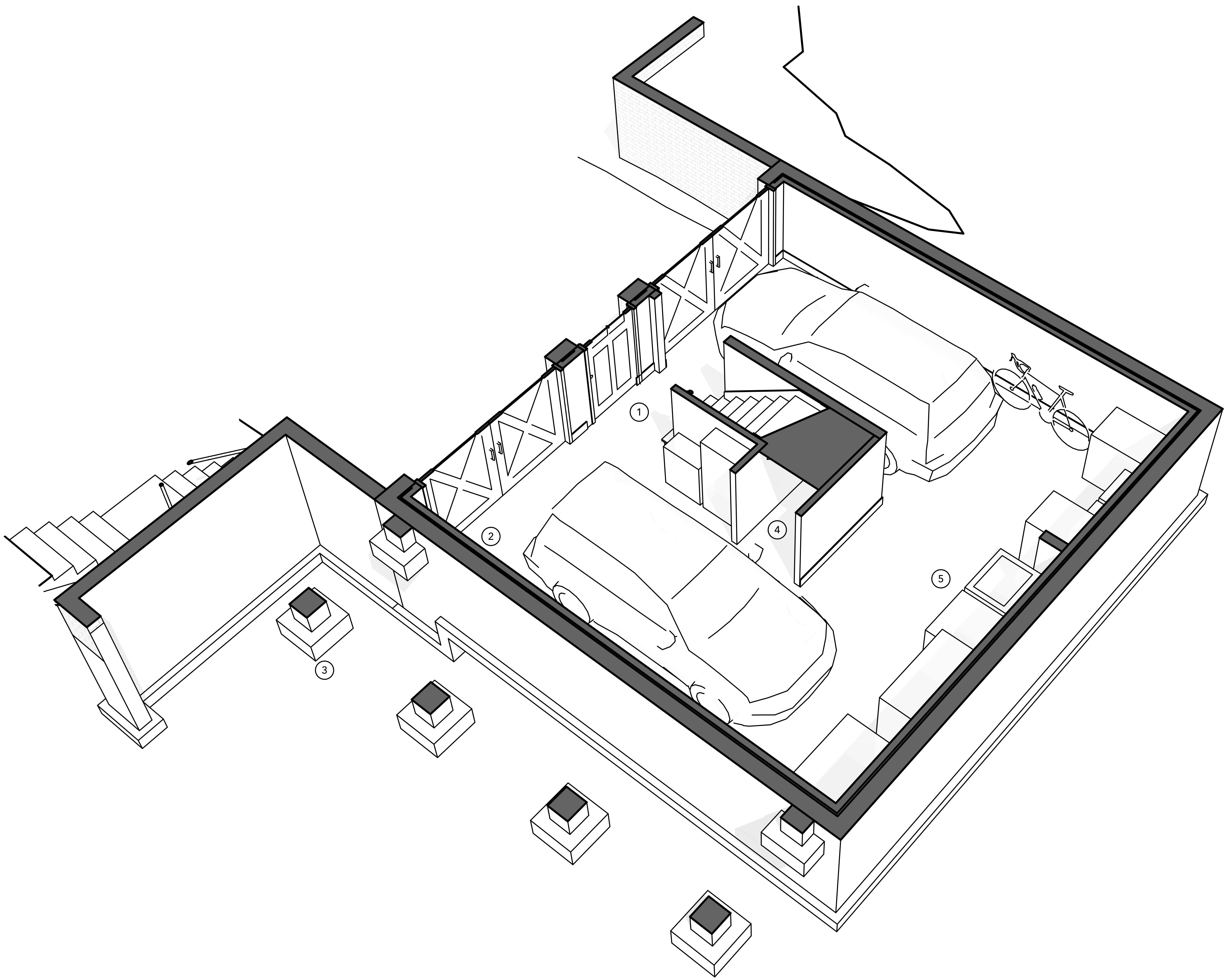
(1) For bedroom emergency egress, these upper windows can't be smaller (and also have old-time proportions). Other code requirements, like a 2' sill height, may also apply.
(2) Making any changes will result in a cascade of new issues. This dormer is required for maintaining head room at the staircase. (A common old function of dormers.) This shed dormer is relatively simple and inexpensive to build compared to a gable dormer.

EXTENDED BACKYARD FARMHOUSE

BACK PERSPECTIVE 2

JAY OSBORNE

(3) A quick note: Do not use vinyl or aluminum siding. It's impossible to create good details using flimsy snap-in-place siding. All the edges and connections look wrong. I usually recommend fiber cement siding because it will probably last a century or two. It is fireproof, bug-proof, rot-resistant, dimensionally stable, and less expensive than good wood siding. Vinyl siding would make this house look like a cheap plastic toy.



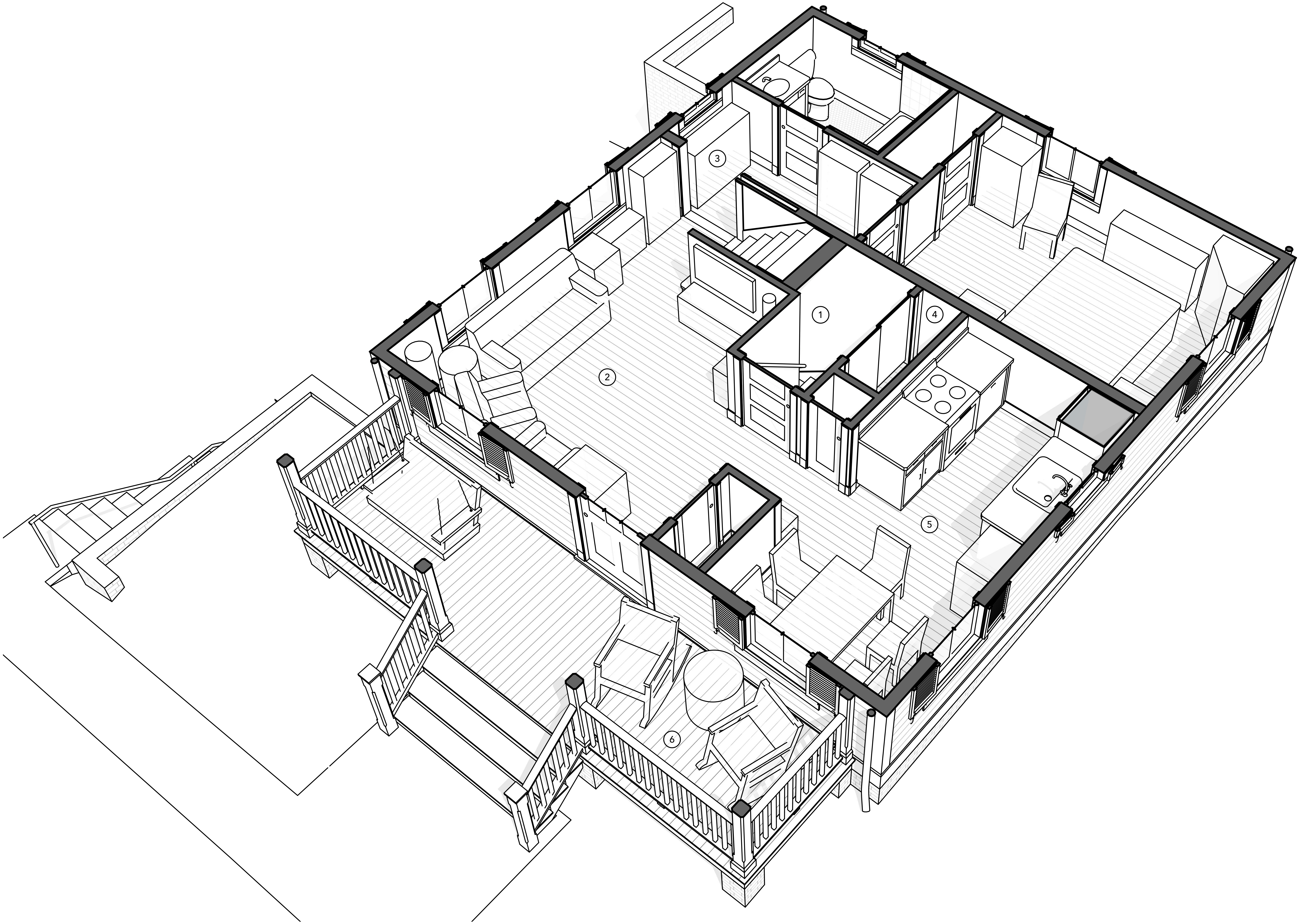
(1) The circulation from the door to the staircase is placed at the center of the basement, for maximum spatial efficiency. **(2)** The cars each get about 9 by 18 feet of clear space for parking. They would have more if the garage were uninsulated (furred-out walls omitted). **(3)** Footings for the porch piers. **(4)** The walls extend outward here partly to make the staircase easier to build, but also to ensure a minimum height at the sloped ceiling.

EXTENDED BACKYARD FARMHOUSE

THE BASEMENT

JAY OSBORNE

(5) Because the basement walls are insulated, these spaces could hold other functions, like a laundry area, a workshop, or a play room. Basements cost significantly more than other foundation types, so it's worth giving some thought into all the ways they may be used in the future. For instance, by adding pipes or utility chases into the slab, your initial construction will cost about the same, but it saves a fortune during any future renovation.



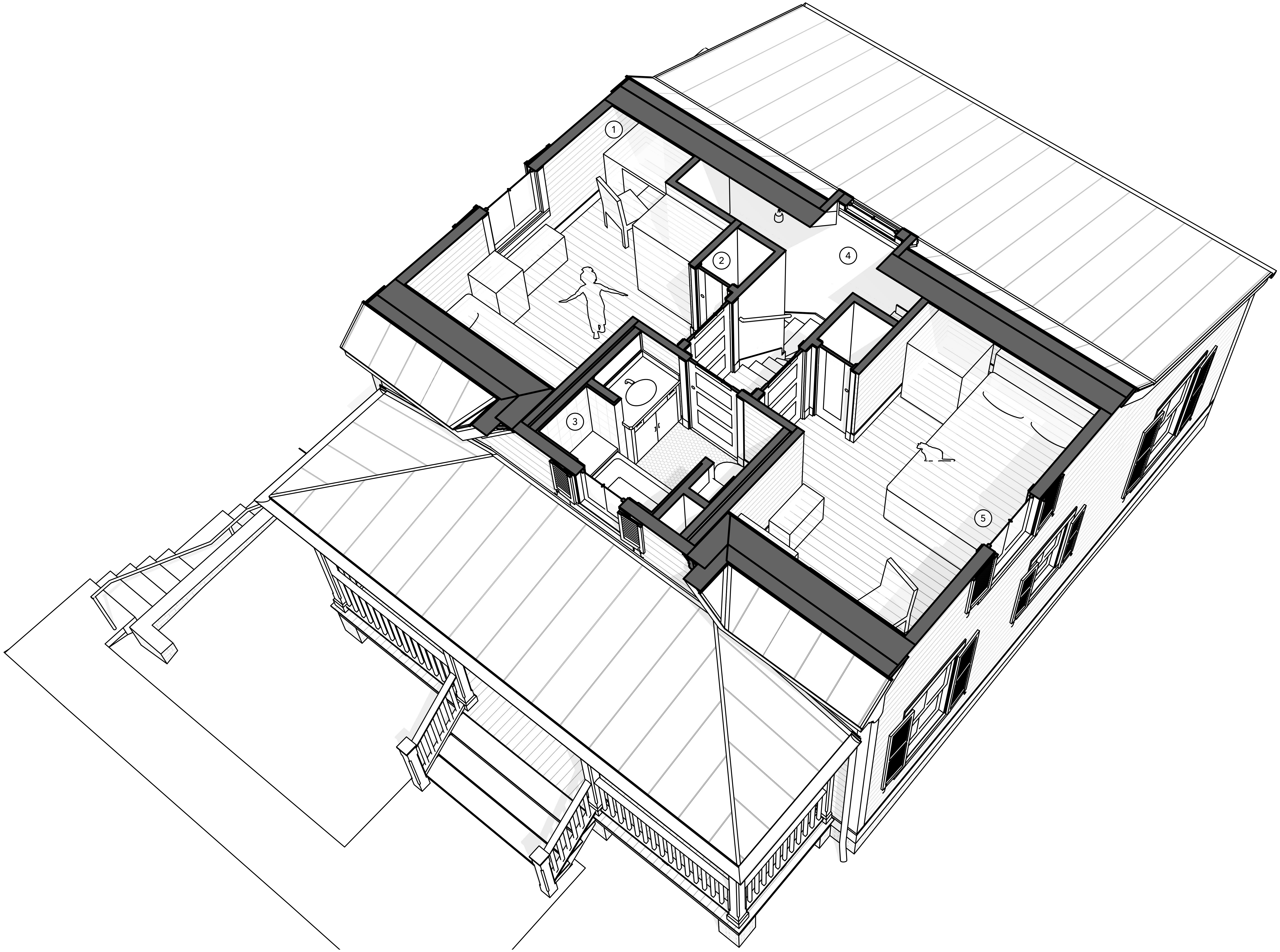
EXTENDED BACKYARD FARMHOUSE

FIRST FLOOR

JAY OSBORNE

(1) In previous iterations, the staircase was oriented differently, which allowed it to be more like a spiral staircase— a centerpiece of the design. After much testing however, the L-shaped layout seems to work better for the most situations. Since this is the smallest variation of the design, the winder stairs (with angled steps) are still necessary, but easier to make. **(2)** The living room's many windows are great for cross breezes and daylighting.

(3) The pocket door can be closed, so the bathroom is exclusively used by the bedroom.
(4) This utility closet is accessed from a short door in the staircase, and would hold utilitarian items like brooms, buckets, and maybe a water heater or an air handling unit.
(5) The kitchen and dining are separate from the living room, allowing private moments.
(6) The porch depth is minimal. With the railing, rocking chairs have just enough space.



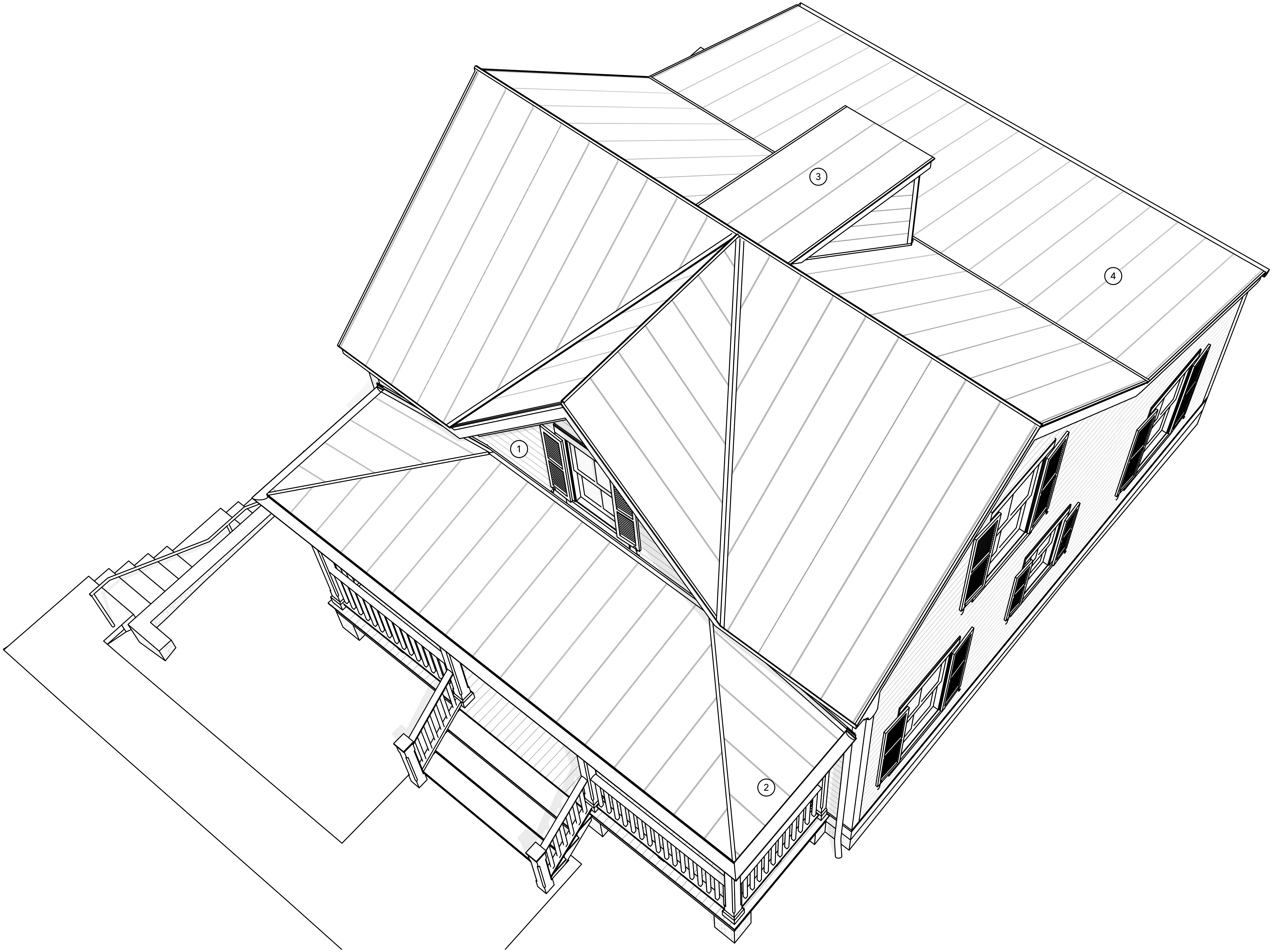
EXTENDED BACKYARD FARMHOUSE

SECOND FLOOR

JAY OSBORNE

(1) The vertical walls are 3 feet tall, before the ceiling slopes. This was common in the past, but in truth, 4 feet is much more comfortable. And the ceiling needs to be 5 feet high for any part of the room to technically qualify as floor area. These bedrooms are therefore quite big, despite being (technically) only 100 square feet. Knee walls can thicken these outer walls— heightening the lowest part of the ceiling, but with less floor.

(2) The design gives a closet to each bedroom. Though usually not required by law (contrary to popular belief), closets are now expected in bedrooms. **(3)** The low ceiling height severely limits the arrangement of the bathroom. Here, a built-in seat is placed next to a small bathtub. **(4)** The dormer is needed for adequate staircase head clearance. **(5)** Doors and windows are aligned. When open, this assists with creating cross breezes.



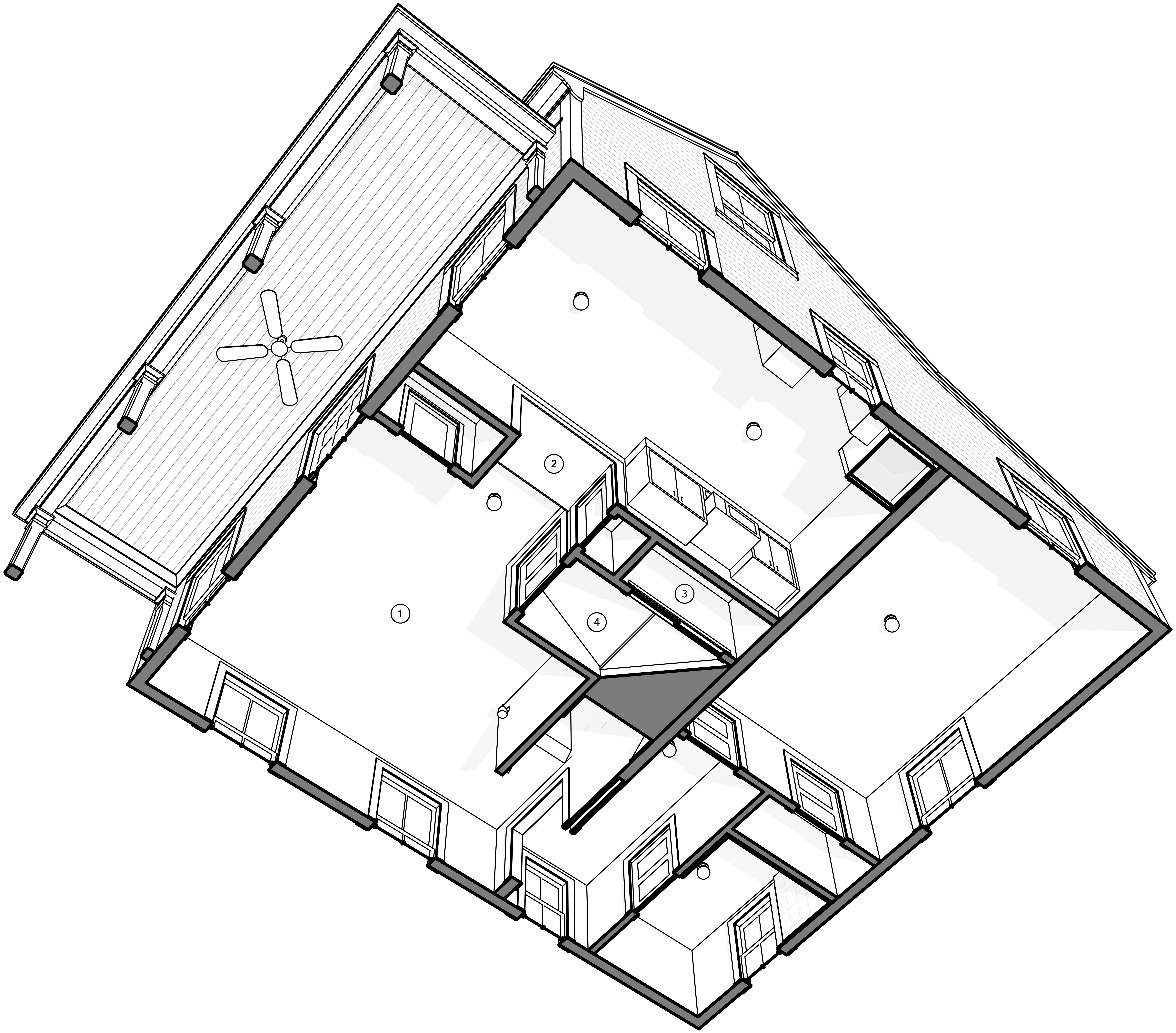
(1) The front gable is the most iconic aspect of this house, and it also allows just enough volume for the upstairs bathroom. Yet because the front of the house might face the other side, it should be noted that a large shed dormer could be used here instead. That would make the construction and spatial configuration much easier, especially when considering the ceiling heights in the bathroom, a shed dormer allows more possibilities.

EXTENDED BACKYARD FARMHOUSE

THE ROOF

JAY OSBORNE

(2) The porch's hip roof lets the gutter go back to the main massing of the house. If you make this a shed roof, you would need a downspout connected to one of the columns. **(3)** The shed dormer allows enough head room for the staircase. **(4)** The lean-to roof is a very simple way to add new masses to the house. It also highlights the area where the bedroom suite is located, and visually reinforces the more important part of the house.



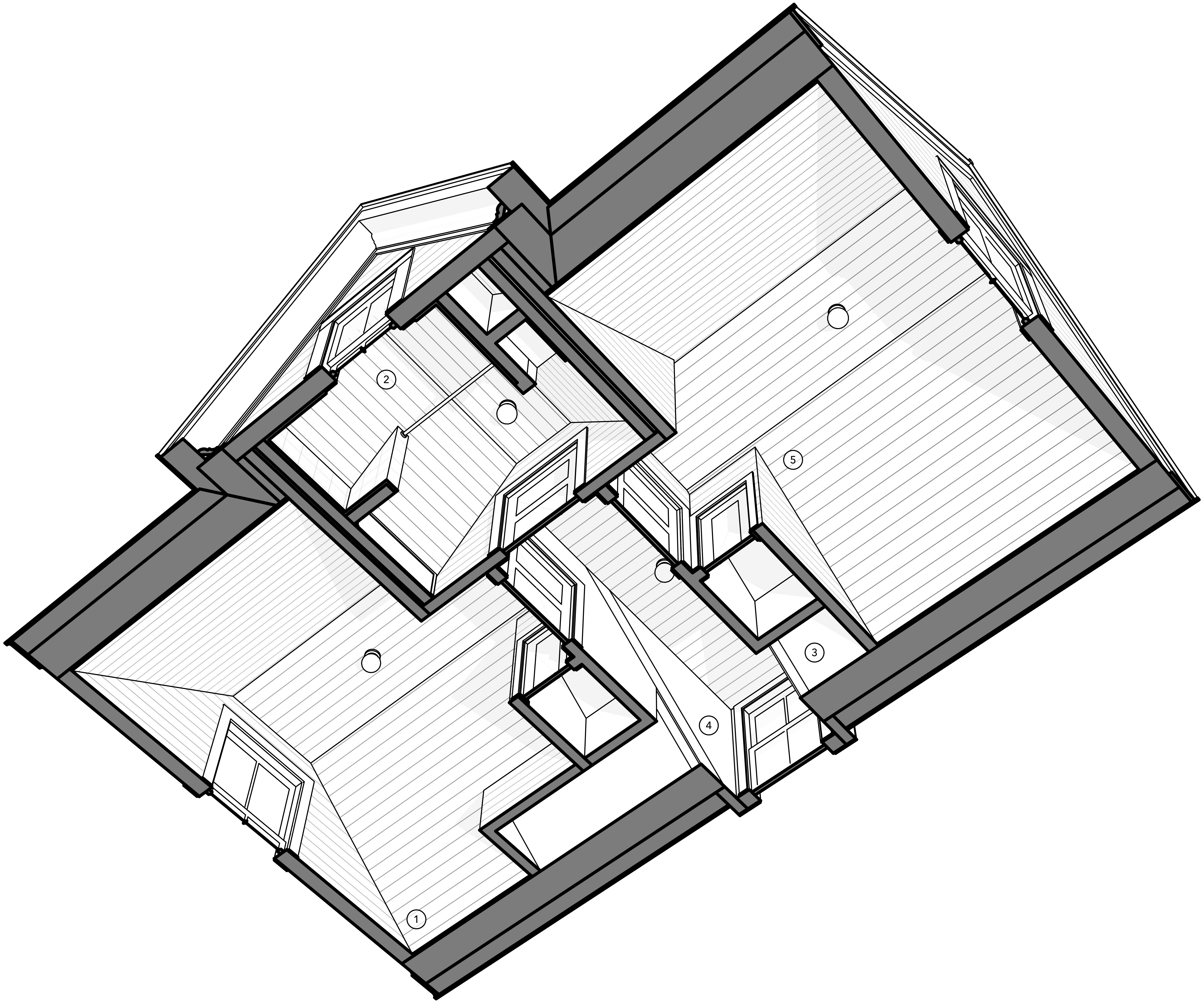
(1) Lights are usually placed in the center of a room's ceiling only because that's the most efficient spot. However, it's better to have multiple sources of artificial light, for the same reason that windows should be on two sides of every room. Balanced lighting from multiple angles is less harsh. It reduces glare and the visual contrast of shadows. Though the lighting here is rather conventional, remember that you are free to be more creative.

EXTENDED BACKYARD FARMHOUSE

DOWNSTAIRS CEILING

JAY OSBORNE

(2) A beam and utility chase make it easier to use 2x8 joists instead of 2x10s. For plumbing and ducts. **(3)** The utility closet has a small door, with space in the ceiling above. This space can be used for ductwork. **(4)** A minimum of 80 inches is needed for the head clearance at the staircase. This sounds like a simple constraint, but it's actually quite hard to maintain such space. Changing the stair design will cause many headaches.



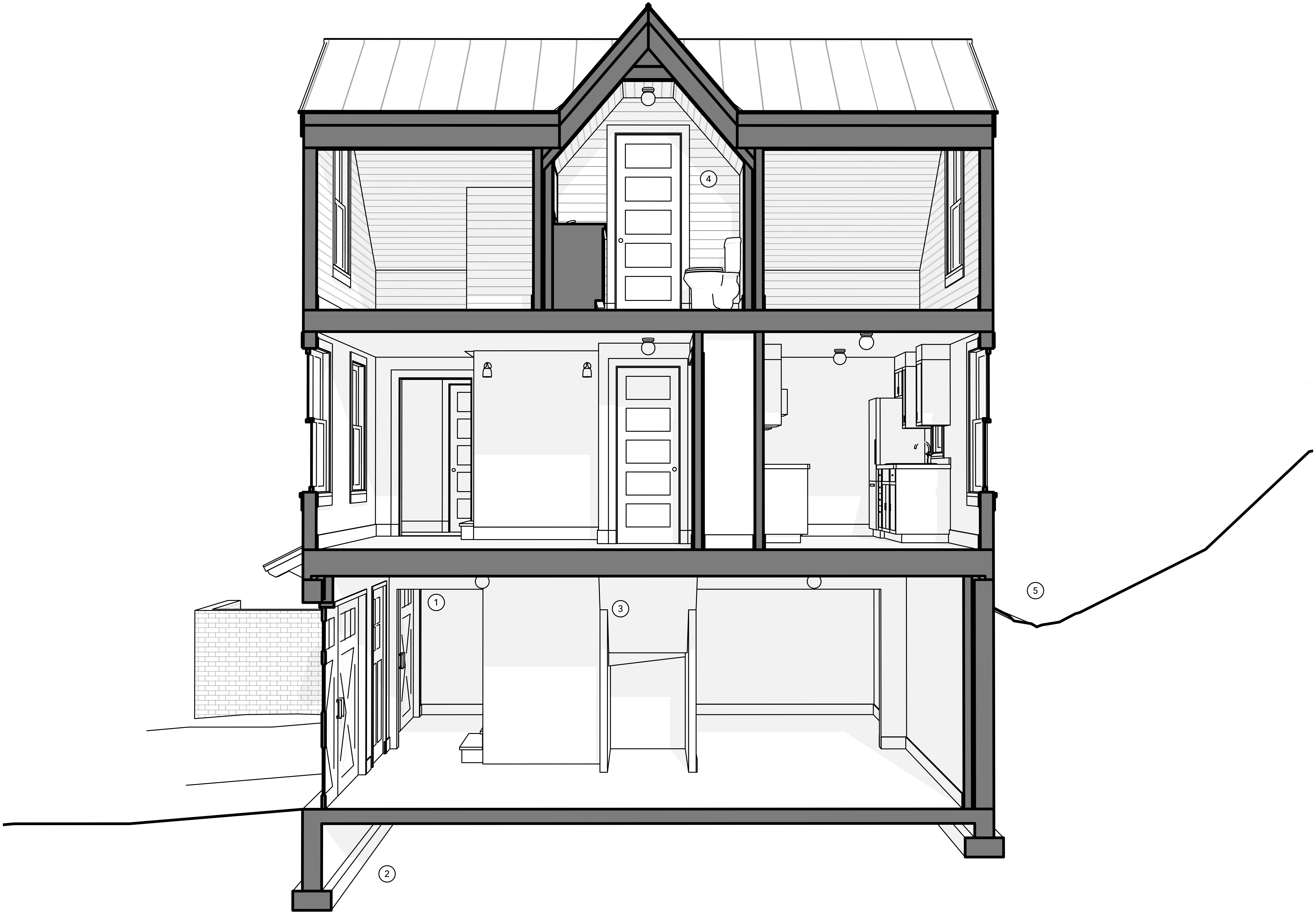
EXTENDED BACKYARD FARMHOUSE

UPSTAIRS CEILING

JAY OSBORNE

(1) The ceiling heights at this level are about as low as they can go. This design is intended to work with strict height limits, so it does not allow much flexibility to reduce the ceiling heights at the upstairs level. Doors, windows, and bathroom fixtures are hard to rearrange (without causing massive problems, that is). If you like, raise all the ceilings by a foot or two. But lowering these ceilings will cause a number of headaches.

(2) The front gable provides just enough volume to add a small room (here, a bathroom).
(3) A linen alcove at the staircase can have shelves, a bench, or even a laundry hookup.
(4) The dormer is like a more efficient skylight, and also provides head room at the stairs.
(5) Beadboard walls and ceilings are more pleasant to touch than drywall. Overall, these bedrooms will feel cozy and charming, like being in a light and airy cave. Or a large tent.



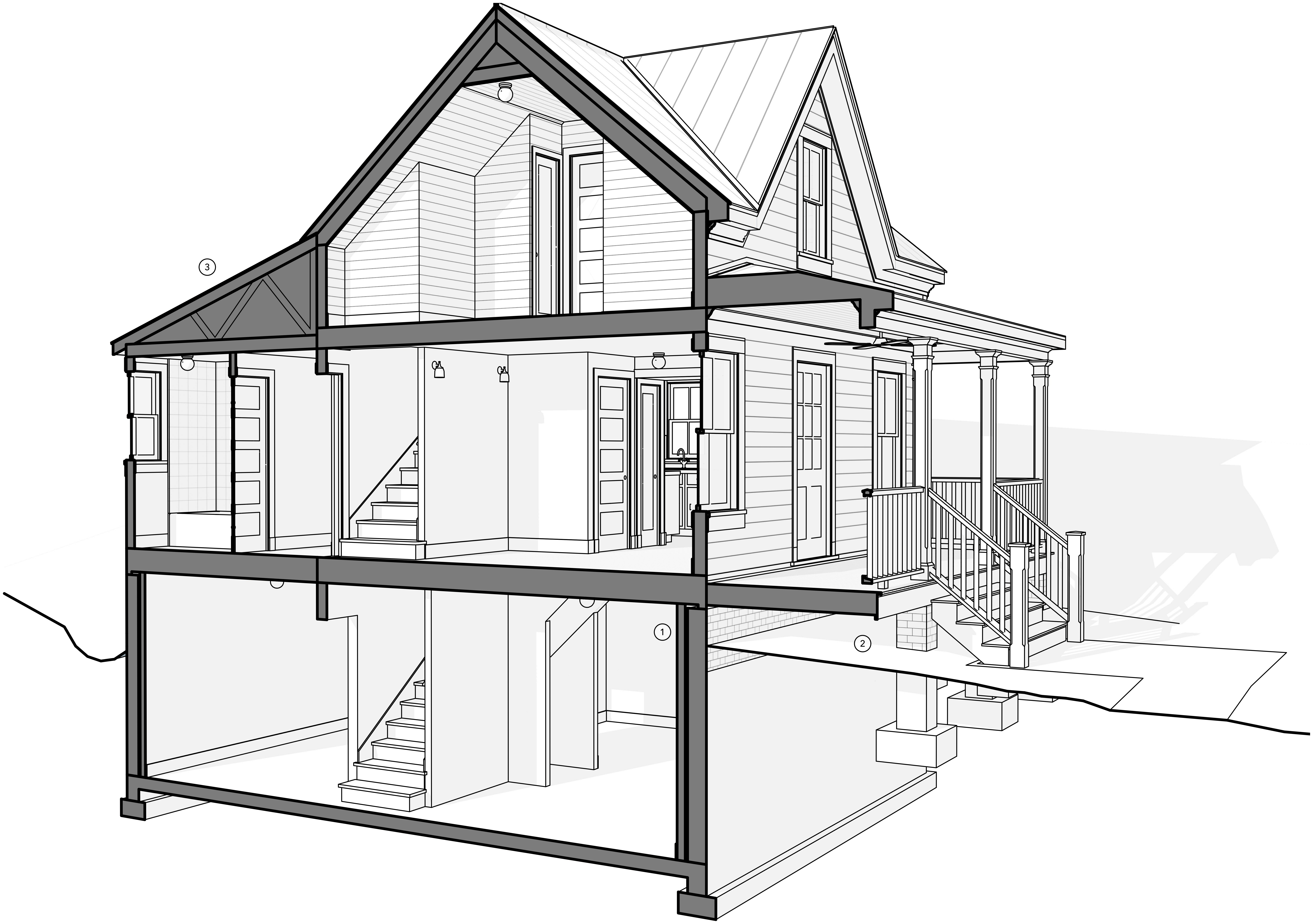
(1) The basement has an eight foot ceiling, which is usually the minimum for a roll-up door. Since the doors are hinged, you could take the ceiling down a few more inches.
(2) The concrete foundation could be done differently depending on where you live.
(3) This space below the stairs can have a low ceiling, and be used for storage. However, the walls around it must be at least 6'-4" where the stairs slope, for adequate head room.

EXTENDED BACKYARD FARMHOUSE

LONG SECTION

JAY OSBORNE

(4) The ceiling heights at the bathroom are so low that making any changes will likely result in code violations (or just head bumping). Raising the ceilings a foot would make these upstairs rooms feel more comfortable. But don't raise them any more than two feet.
(5) Usually, codes require the ground to slope at least six inches down within ten feet of a house. Using french drains or other drainage systems may be necessary at steep slopes.



EXTENDED BACKYARD FARMHOUSE

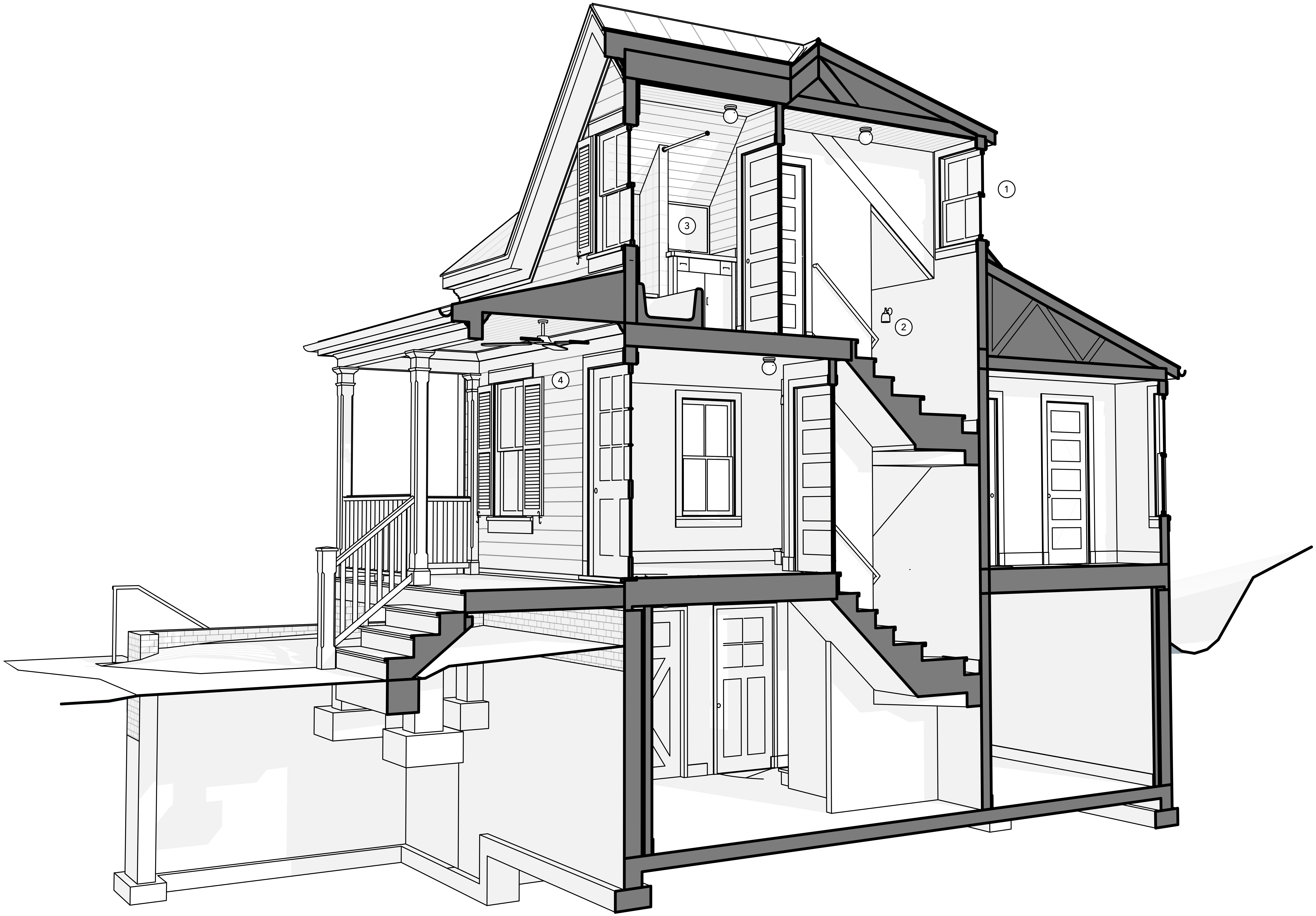
TRANSVERSE SECTION 1

JAY OSBORNE

(1) The basement is shown with a brick texture, but it would need a few more inches to support a conventional brick veneer (though I'm imagining it with thin brick tiles). The walls are already a few inches thicker because, on the inside, they have a 2x4 wall with insulation. If the basement were unconditioned, it would give you five more inches of space. And you could give those extra inches to add brick veneer on the exterior walls.

(2) Usually, if the drop from the porch floor to the ground is less than 30 inches, you don't actually need a railing (but local codes may differ). Some codes specify that the drop be measured a distance of 5 feet laterally, but most leave that up to interpretation.

(3) The rear "addition" with the bedroom suite has a simple roof that can built in any number of ways. Here, a truss is shown. But that might be overkill for such a simple build.



EXTENDED BACKYARD FARMHOUSE

TRANSVERSE SECTION 2

JAY OSBORNE

(1) The dormer window can be left open on hot days, allowing the air from the downstairs to rise and leave through that opening. The size is fairly small— and about the minimum for a historically accurate dormer window— because of the need to keep it below the upstairs ceiling height, and above the roof slope transition. **(2)** The wall-mounted light should be about 80 inches above the tread stairs, to be accessed.

(3) Since this mirror is only 3-5 feet heigh (which is just below eye level for most people), it may instead be best to have a smaller, swiveling, or historically accurate looking glass.
(4) The ceiling fan is placed right above the front door, with the hope of blowing away any insects that dare to come inside. In reality, you'd probably need a screen door (and could use two fans on the porch). And put screens over the lower sashes of the windows.